

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method, in a logically partitioned data processing system comprising a set of physical processors configured as a set of logical processors, for managing a set of devices in the logically partitioned data processing system, the method comprising:

receiving an alert through an alert mechanism, wherein the alert is at least one of a power alert and a thermal alert;

altering operation of a selected ~~device~~ physical processor within the set of ~~devices~~ physical processors in response to the alert, wherein at least one of power usage and generation of heat by the selected ~~device~~ physical processor is reduced, wherein the altering step includes altering the operation of the selected physical processor by turning off the selected physical processor and changing, without operating system intervention, logical processor configuration of the set of logical processors to reflect the selected physical processor's altered operation.

2. (Currently amended) The method of claim 1, wherein ~~the set of devices is a set of processors~~ a single physical processor of the set of physical processors is allocated to multiple logical processors of the set of logical processors.

3. (Currently amended) The method of claim 2, wherein the logically partitioned data processing system has ~~a single logical partition~~ multiple logical partitions, with each of the multiple logical partitions being associated with a logical processor of the set of logical processors.

4. (Currently amended) The method of claim 2, wherein the set of ~~devices~~ are a set of physical processors are mapped to an ~~equal~~ unequal set of logical processors.

5. (Currently amended) The method of claim 2, wherein ~~the selected device is a selected physical processor and wherein the altering step~~ changing the logical processor configuration includes:

~~altering the operation of the selected physical processor by turning off the selected physical processor; and~~

assigning a corresponding logical processor mapped to the selected physical processor to another physical processor ~~in the equal set of logical processors.~~

6. (Currently amended) The method of claim 1, wherein the ~~set of devices is selected from at least one of a set of processors, memory, a set of input/output devices~~ operation of the selected physical processor is altered by an event handler using a sub-processor partitioning call.
7. (Original) The method of claim 1, wherein the receiving step and the altering step are performed by a runtime abstraction layer.
8. (Currently amended) The method of claim 1, wherein power usage and generation of heat ~~[[is]]~~ are reduced by reducing power used by the selected ~~device~~ physical processor.
9. (Currently amended) A method for managing a set of physical processors mapped to a set of logical processors, the method comprising:
receiving an alert from an operating system, wherein the alert is at least one of a power alert and a thermal alert; and
altering operation of a selected physical processor within the set of physical processors in response to the alert, wherein at least one of power usage and generation of heat by the selected physical processor is reduced, wherein the altering step includes altering the operation of the selected physical processor by turning off the selected physical processor and changing, without intervention by the operating system, mapping of the set of physical processors and the set of logical processors to reflect the selected physical processor's altered operation.
10. (Currently amended) The method of claim 9 ~~further comprising~~ wherein the changing step comprises:
reassigning a logical processor mapped to the selected physical processor ~~if the altering step causes the selected physical processor to be unavailable.~~
11. (Currently amended) The method of claim 10 further comprising:
altering operation of the selected physical processor back to an original state present before the alert if another alert is received canceling the alert; and
reassigning the logical processor ~~corresponding~~ back to the selected physical processor.
12. (Currently amended) A logically partitioned data processing system, comprising a set of physical processors configured as a set of logical processors, for managing a set of devices in the logically partitioned data processing system, the logically partitioned data processing system comprising:

receiving means for receiving an alert, wherein the alert is at least one of a power alert and a thermal alert; and

altering means for altering operation of a selected ~~device~~ physical processor within the set of ~~devices~~ physical processors in response to the alert, wherein at least one of power usage and generation of heat by the selected ~~device~~ physical processor is reduced, wherein the altering means includes means for altering the operation of the selected physical processor by turning off the selected physical processor and means for changing, without operating system intervention, logical processor configuration of the set of logical processors to reflect the selected physical processor's altered operation.

13. (Currently amended) The logically partitioned data processing system of claim 12, wherein ~~the set of devices is a set of processors~~ a single physical processor of the set of physical processors is allocated to multiple logical processors of the set of logical processors.

14. (Currently amended) The logically partitioned data processing system of claim 13, wherein the logically partitioned data processing system has ~~a single logical partition~~ multiple logical partitions, with each of the multiple logical partitions being associated with a logical processor of the set of logical processors.

15. (Currently amended) The logically partitioned data processing system of claim 13, wherein the set of ~~devices are a set of~~ physical processors are mapped to an unequal set of logical processors.

16. (Currently amended) The logically partitioned data processing system of claim 15, wherein the ~~selected device is a selected physical processor and wherein the altering~~ means for changing the logical processor configuration includes:

~~means for altering the operation of the selected physical processor by turning off the selected physical processor; and~~

assigning means for assigning a corresponding logical processor mapped to the selected physical processor to another physical processor ~~in the equal set of logical processors.~~

17. (Currently amended) A data processing system for managing a set of physical processors mapped to a set of logical processors, the data processing system comprising:

receiving means for receiving an alert from an operating system, wherein the alert is at least one of a power alert and a thermal alert; and

altering means for altering operation of a selected physical processor within the set of physical processors in response to the alert, wherein at least one of power usage and generation of heat by the selected physical processor is reduced, wherein the altering means includes means for altering the operation of the selected physical processor by turning off the selected physical processor and means for changing, without intervention by the operating system, mapping of the set of physical processors and the set of logical processors to reflect the selected physical processor's altered operation.

18. (Currently amended) The data processing system of claim 17 ~~further comprising~~ wherein the means for changing comprises:

reassigning means for reassigning a logical processor mapped to the selected physical processor ~~if the altering means causes the selected physical processor to be unavailable.~~

19. (Currently amended) The data processing system of claim 18 wherein the altering means is a first altering means and wherein the reassigning means is a first reassigning means further comprising:

second altering means for altering operation of the selected physical processor back to an original state present before the alert if another alert is received canceling the alert; and

second reassigning means for reassigning the logical processor ~~corresponding~~ back to the selected physical processor.

20. (Currently amended) A computer program product in a computer readable medium for managing a set of devices in a data processing system, the set of devices configured as a set of logical processors, the computer program product comprising:

first instructions for receiving an alert, wherein the alert is at least one of a power alert and a thermal alert; and

second instructions for altering operation of a selected device within the set of devices in response to the alert, wherein at least one of power usage and generation of heat by the selected device is reduced, wherein the second instructions for altering includes first sub instructions for altering the operation of the selected device by turning off the selected device and second sub instructions for changing, without operating system intervention, logical processor configuration of the set of logical processors to reflect the selected device's altered operation.

21. (Currently amended) The computer program product of claim 20, wherein ~~the set of devices is a set of processors~~ a single physical processor of the set of physical processors is allocated to multiple logical processors of the set of logical processors.

22. (Currently amended) The computer program product of claim 21, wherein the logically partitioned data processing system has ~~a single logical partition~~ multiple logical partitions, with each of the multiple logical partitions being associated with a logical processor of the set of logical processors.

23. (Currently amended) The computer program product of claim 21, wherein the set of devices are a set of physical processors mapped to an ~~equal or~~ unequal set of logical processors.

24. (Currently amended) The computer program product of claim 23, wherein the ~~selected device is a selected physical processor wherein the second instructions~~ second sub instructions for changing the logical processor configuration includes:

~~first sub instructions for altering the operation of the selected physical processor by turning off the selected physical processor; and~~

~~second~~ third sub-instructions for assigning a corresponding logical processor mapped to the selected physical processor to another physical processor ~~in the equal set of logical processors~~.

25. (Currently amended) A computer program product in a computer readable medium for managing a set of physical processors mapped to a set of logical processors, the computer program product comprising:

first instructions for receiving an alert from an operating system, wherein the alert is at least one of a power alert and a thermal alert; and

second instructions for altering operation of a selected physical processor within the set of physical processors in response to the alert, wherein at least one of power usage and generation of heat by the selected physical processor is reduced, wherein the second instructions for altering includes instructions for altering the operation of the selected physical processor by turning off the selected physical processor and instructions for changing, without intervention by the operating system, mapping of the set of physical processors and the set of logical processors to reflect the selected physical processor's altered operation.

26. (Currently amended) The computer program product of claim 25 ~~further comprising wherein the~~ instructions for changing comprises:

third instructions for reassigning a logical processor mapped to the selected physical processor ~~[[if]]~~ the altering step causes the selected physical processor to be unavailable.

27. (Currently amended) The computer program product of claim 26 further comprising:
fourth instructions for altering operation of the selected physical processor back to an original state present before the alert if another alert is received canceling the alert; and
fifth instructions for reassigning the logical processor ~~corresponding~~ back to the selected physical processor.

28. (Currently amended) A logically partitioned data processing system for executing a plurality of operating systems, each one of the plurality of operating systems executing in a respective logical partition of the data processing system, comprising:
a bus system;
a memory connected to the bus system, wherein the memory includes a set of instructions; and
a processing unit connected to the bus system, wherein the processing unit executes ~~[[a]]~~ the set of instructions to receive an alert through a sub-processor partitioning call, wherein the alert is at least one of a power alert and a thermal alert; and alter operation of a selected device within ~~[[the]]~~ a set of devices in response to the alert without intervention by any of the operating systems, wherein at least one of power usage and generation of heat by the selected device is reduced.